
AKAI

MODEL GX-9

SCHEMATIC DIAGRAM AND PC BOARDS

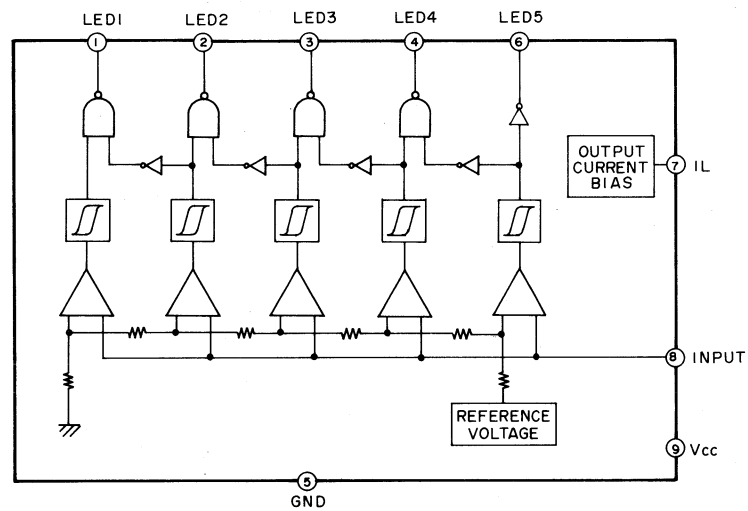
TABLE OF CONTENTS

1. SCHEMATIC DIAGRAM OF ICs	2
2. MI-CON OUTPUT TIMING CHART (1)	8
3. MI-CON OUTPUT TIMING CHART (2)	9
4. MI-CON OUTPUT TIMING CHART (3)	10
5. MI-CON OUTPUT TIMING CHART (4)	11
6. CONNECTION DIAGRAM	12
7. METER/OPERATION PC BOARD, POWER SWITCH PC BOARD, REMOTE CONTROL PC BOARD, MOTOR PC BOARD	13
8. PRE AMP/POWER SCHEMATIC DIAGRAM	14
9. PRE AMP/POWER PC BOARD, HEAD PHONE PC BOARD	15
10. SYSCON/TUNING SCHEMATIC DIAGRAM	16
11. SYSCON/TUNING PC BOARD	17

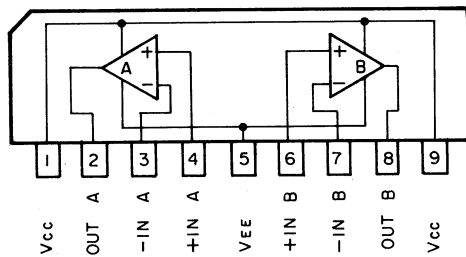
HD6805-X0A29 TERMINALS

PIN	PORT	NAME	DESCRIPTION
1	VSS		GND
2	$\overline{\text{RES}}$		RESET input
3	$\overline{\text{INT}}$		+5V
4	$\overline{\text{STEY}}$		+5V
5	X'TAL		} Oscillator for CLOCK
6	EXTAL		
7	NUM		GND
8	TIMER		+5V
9	A7		Music interval detect input
10	A6		Not used
11	A5	PLAY	PLAY mode
12	A4	STOP	STOP mode
13	A3	SEARCH	SEARCH mode
14	A2	FAST	FAST mode
15	A1	FIX	FIX (STOP) mode
16	A0	EJECT	EJECT mode
			} Comparator reference voltage output for CAM MOTOR.
17	B7	C-STOP	CAM MOTOR rotation finished signal input
18	B6	REEL (R)	REEL MOTOR reverse rotation output
19	B5	REEL (F)	REEL MOTOR forward rotation output
20	B4	VOLTAGE SELECT	Voltage select output for REEL MOTOR
21	B3	SOURCE·M	Source mute output (L: mute on, H: mute off)
22	B2	OSC	Bias oscillator control output (L: oscillation, H: no oscillation)
23	B1	REC MUTE	Mute release output in REC PLAY mode (L: mute on, H: mute off)
24	B0	PB MUTE	Mute release output in PB mode (L: mute on, H: mute off)
25	C7		Not used (+5V)
26	C6	LRSS	Left (supply) Reel Slit Sensor input
27	C5	RRSS	Right (take up) Reel Slit Sensor input
28	C4	DIGIT 4	} DIGIT output for Counter, Indicator STROBE output for input KEY select
29	C3	DIGIT 3	
30	C2	DIGIT 2	
31	C1	DIGIT 1	
32	C0	DIGIT 0	
33	VCC		POWER SUPPLY (+5V)

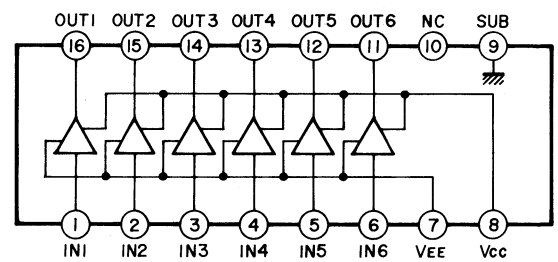
AN6876



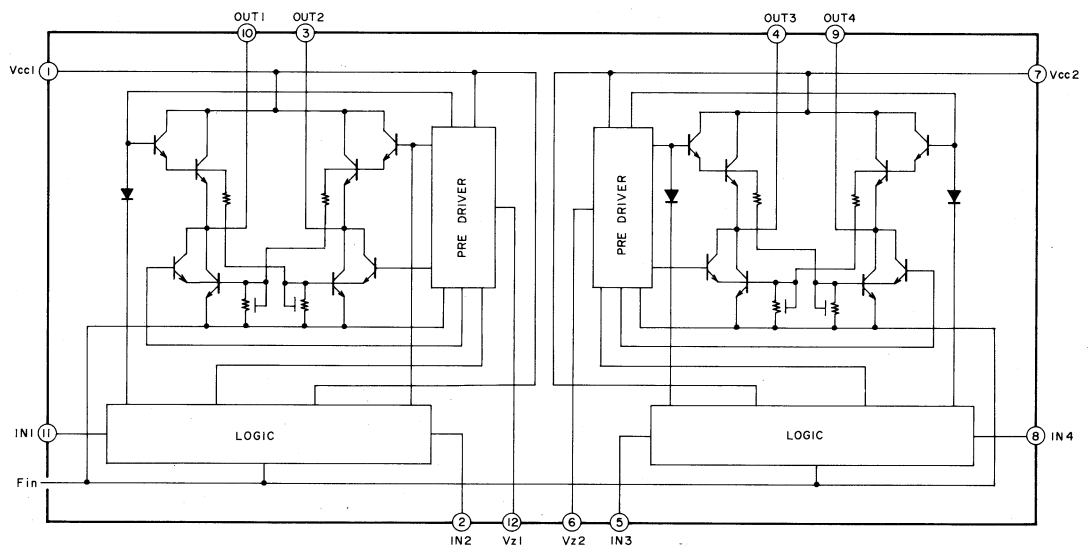
LA6458S/NJM4558S



LB1294

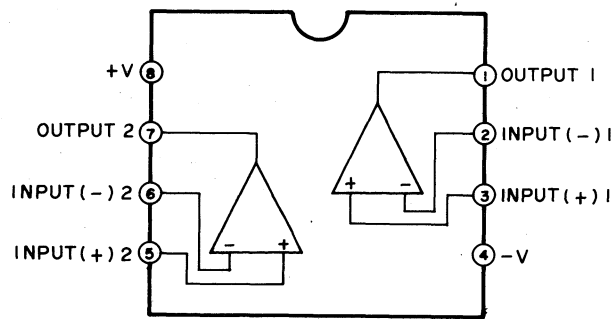


LB1649

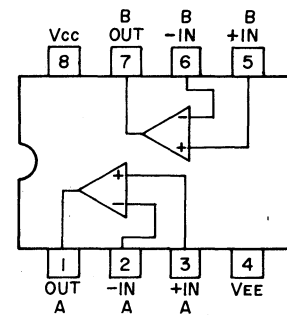


PIN	PORT	NAME	DESCRIPTION
34	D1		Input for KEY
35	D2		
36	D3		
37	D4		
38	D5		
39	D6		
40	D7		
41	E0	a	Counter Segment drive Indicator drive
42	E1	b	
43	E2	c	
44	E3	d	
45	E4	e	
46	E5	f	
47	E6	g	
48	E7	h	Min Sec drive
49	F0	LEVEL DATA (1)	Control output for REC level
50	F1	LEVEL DATA (2)	Reference value: 4
51	F2	LEVEL DATA (3)	Minimum 1 1 1 7 Maximum 0 0 0 0
52	F3	EQ DATA (1)	Control output for REC EQ
53	F4	EQ DATA (2)	Reference value: 4
54	F5	EQ DATA (3)	Minimum 1 1 1 7 Maximum 0 0 0 0
55	F6		SAMPLE HOLD RESET output
56	F7		MOL MML display output
57	G7		Input for A/D Converter output (Detect H → L)
58	G6		Control output for AUTO FADER
59	G5		Not used
60	G4		10 kHz (square wave) output for tuning
61	G3		1 kHz (square wave) output for tuning
62	G2	D/A DATA (3)	D/A Converter control output for A/D Converter
63	G1	D/A DATA (2)	
64	G0	D/A DATA (1)	

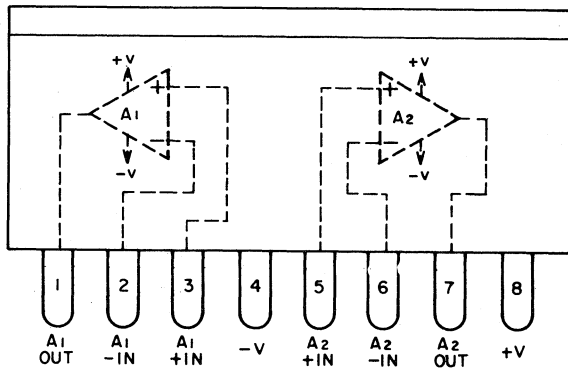
M5216P



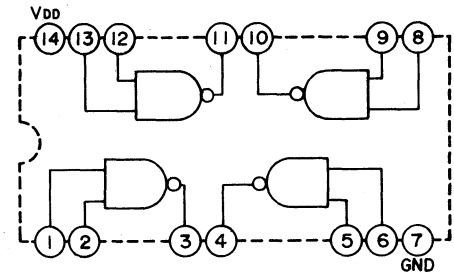
M5218P-21



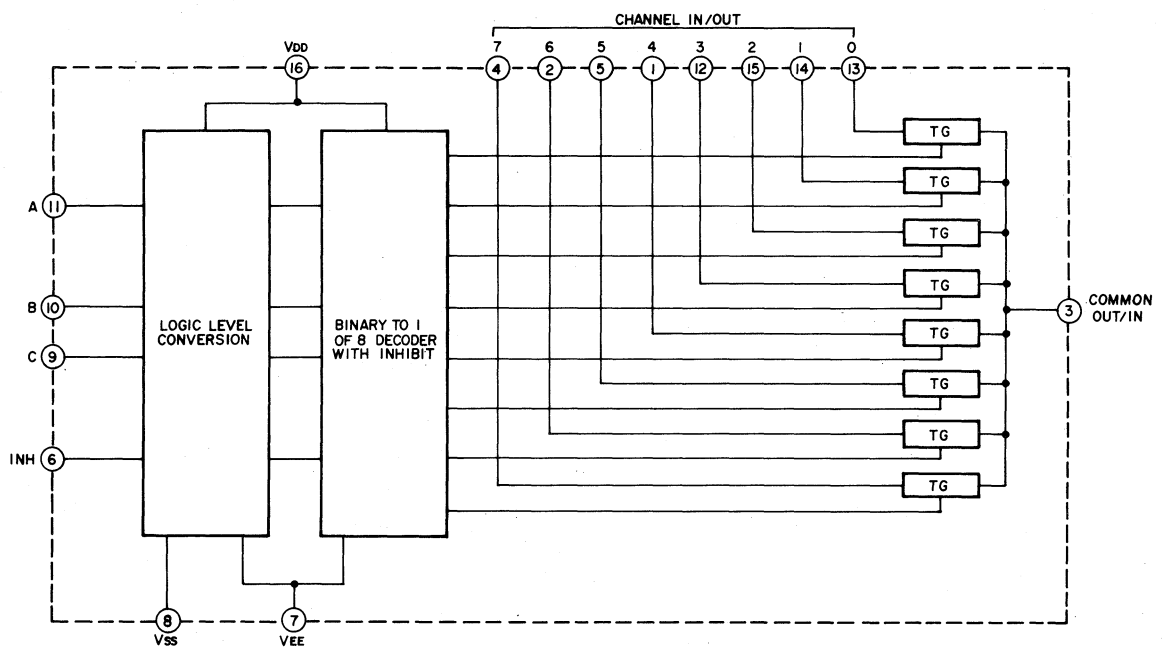
M5218LS



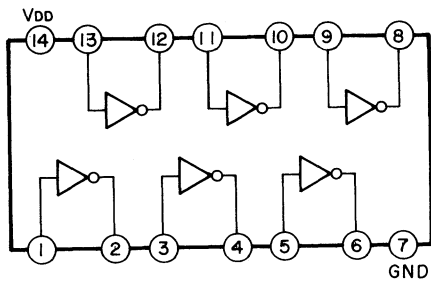
TC4011BP/LC4011B



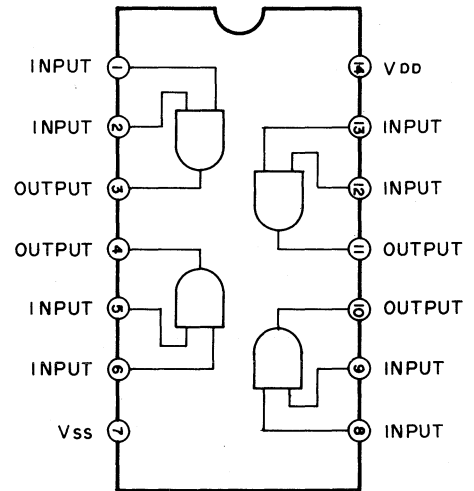
μPD4051



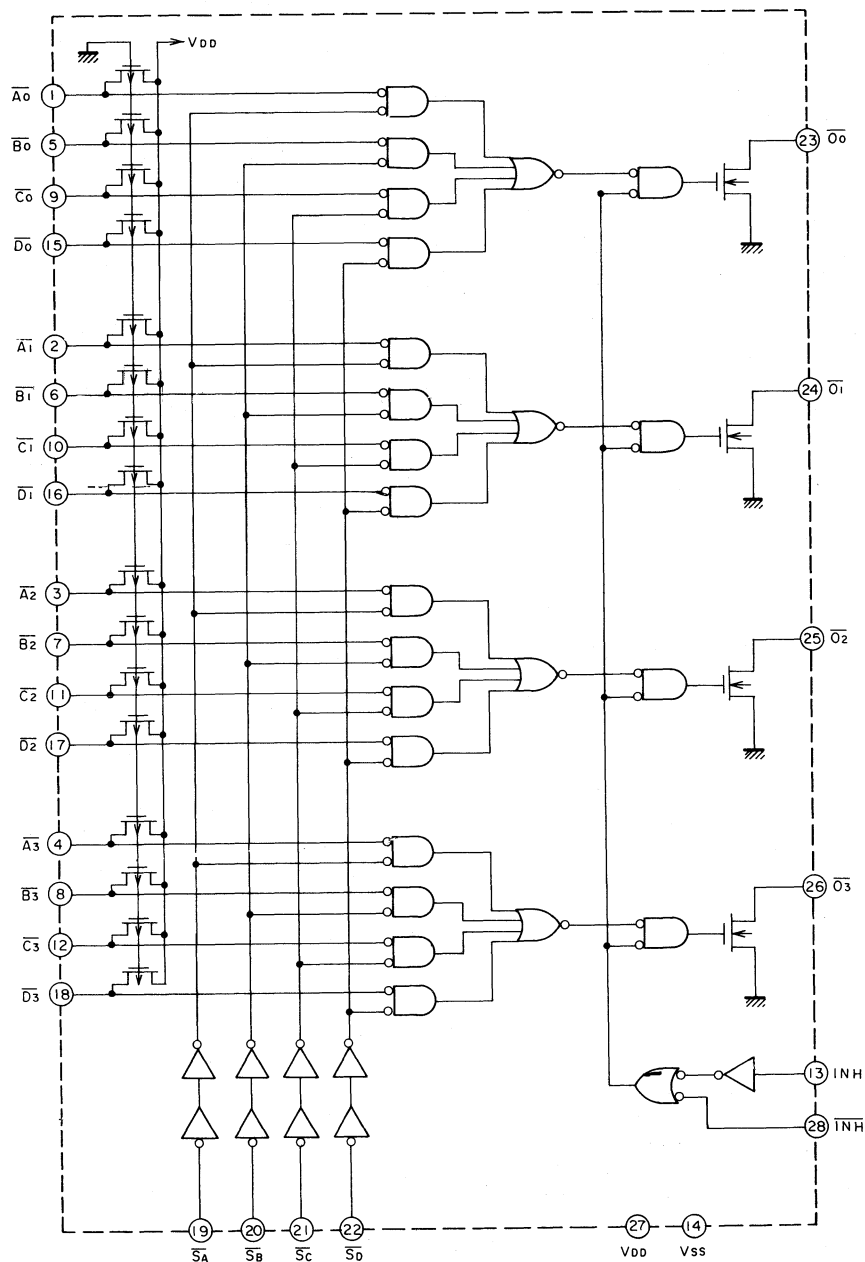
LC4069UB



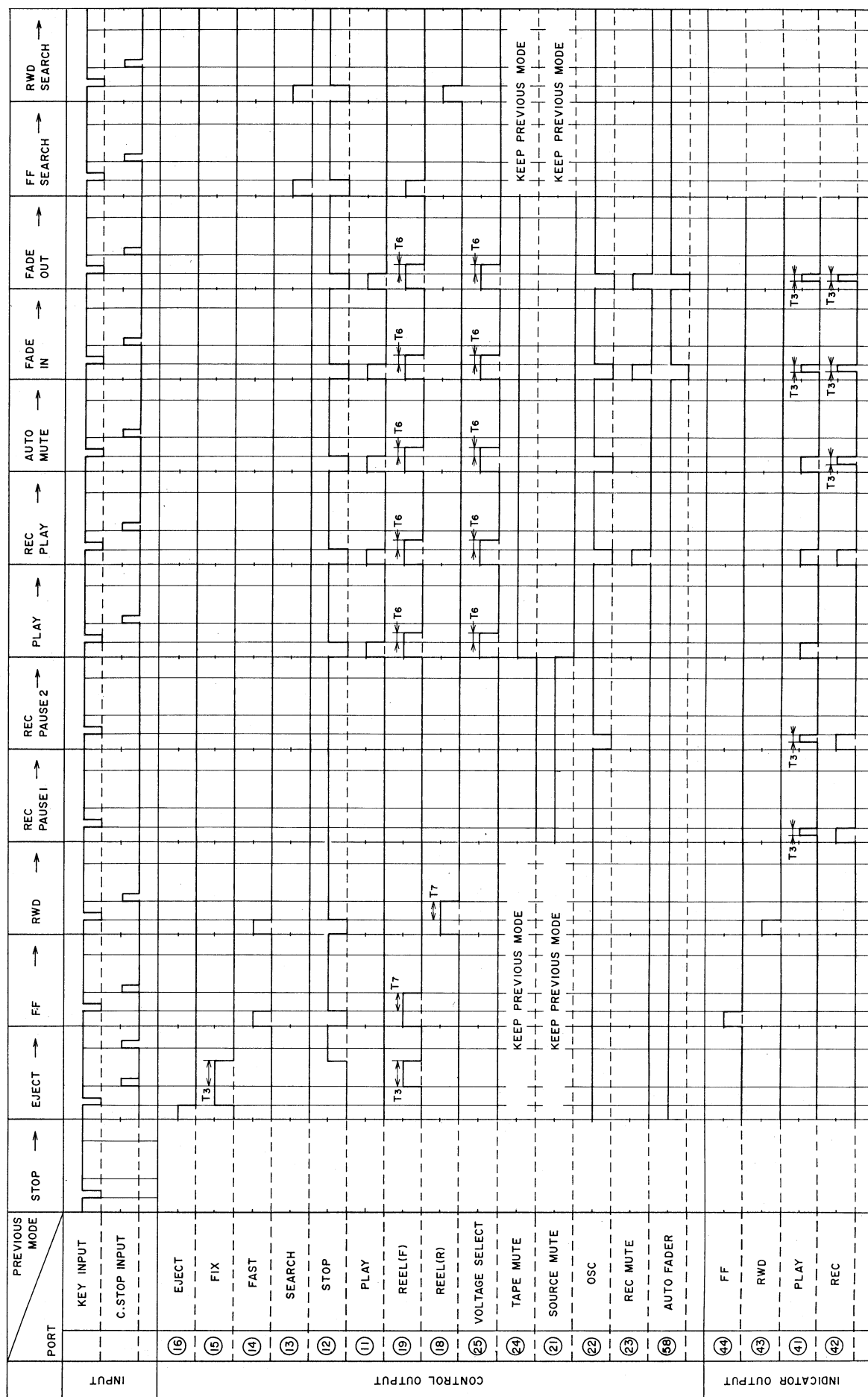
LC4081B



LC7800



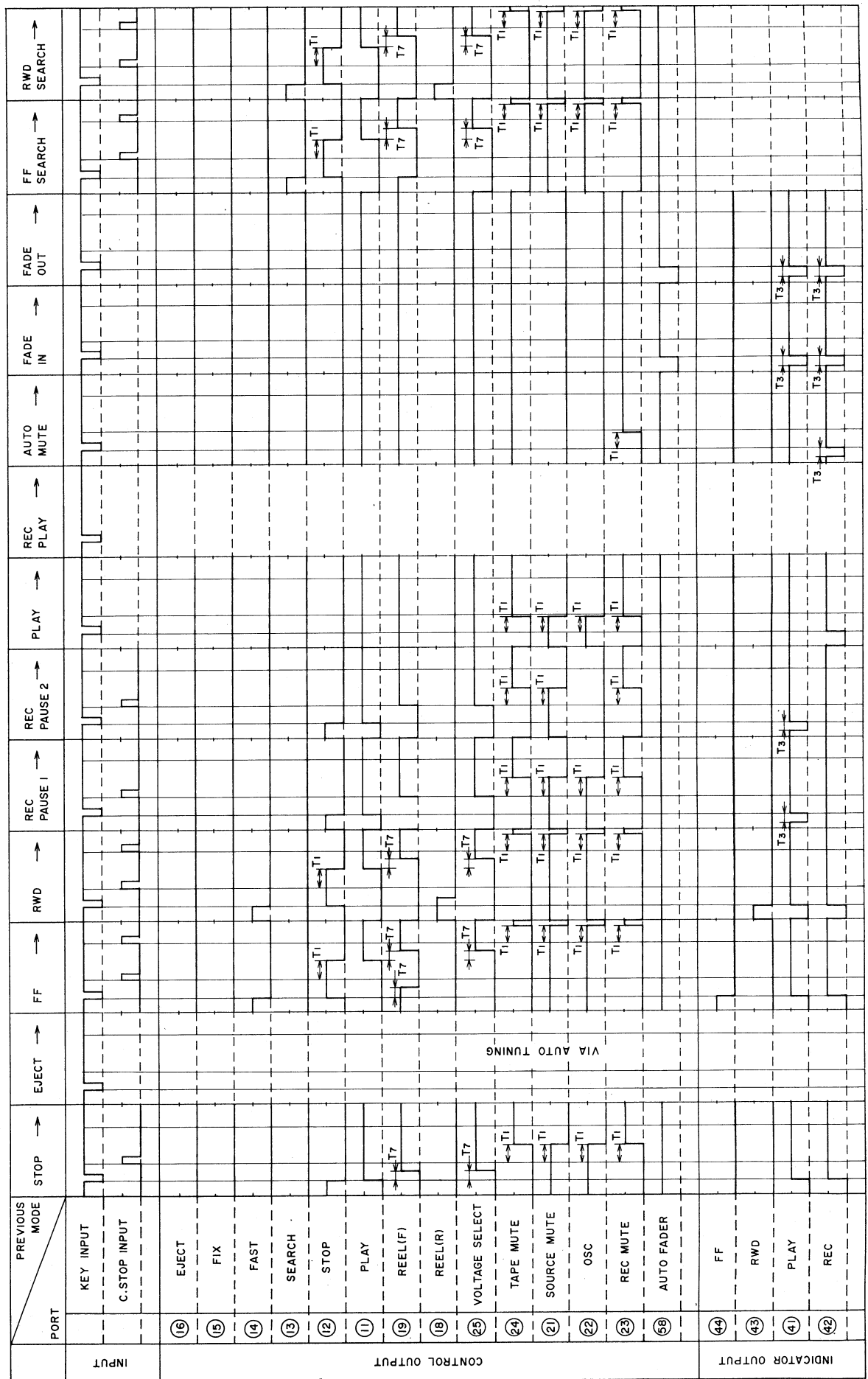
PREVIOUS MODE → STOP



MI-COM OUTPUT TIMING CHART (3)

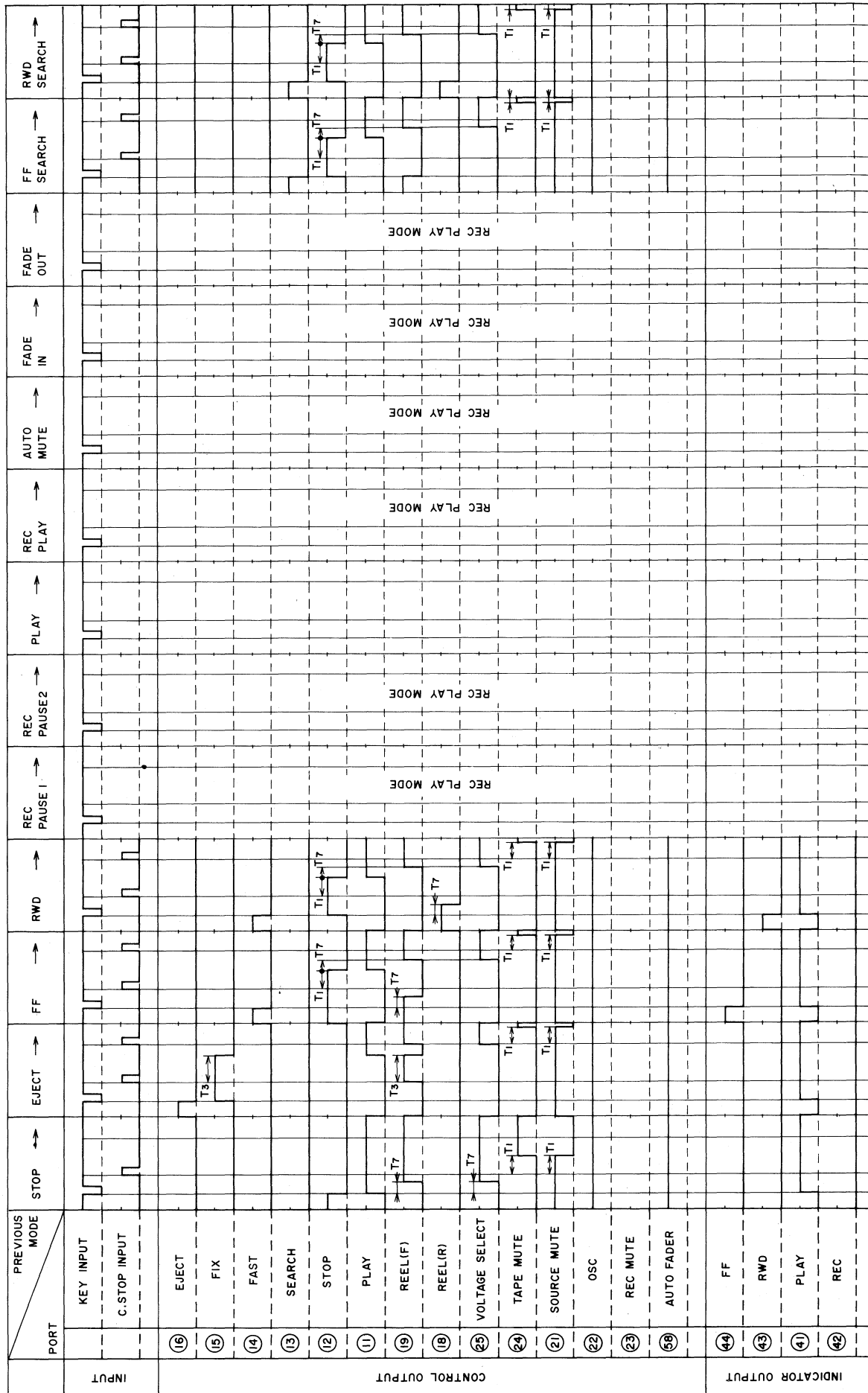
PREVIOUS MODE → REC PLAY

$T_0 = 1.0 \text{ sec}$ $T_4 = 0.15 \text{ sec}$
 $T_1 = 0.1 \text{ sec}$ $T_5 = 0.2 \text{ sec}$
 $T_2 = 0.05 \text{ sec}$ $T_6 = 0.03 \text{ sec}$
 $T_3 = 0.5 \text{ sec}$ $T_7 = 0.04 \text{ sec}$



PREVIOUS MODE → PLAY

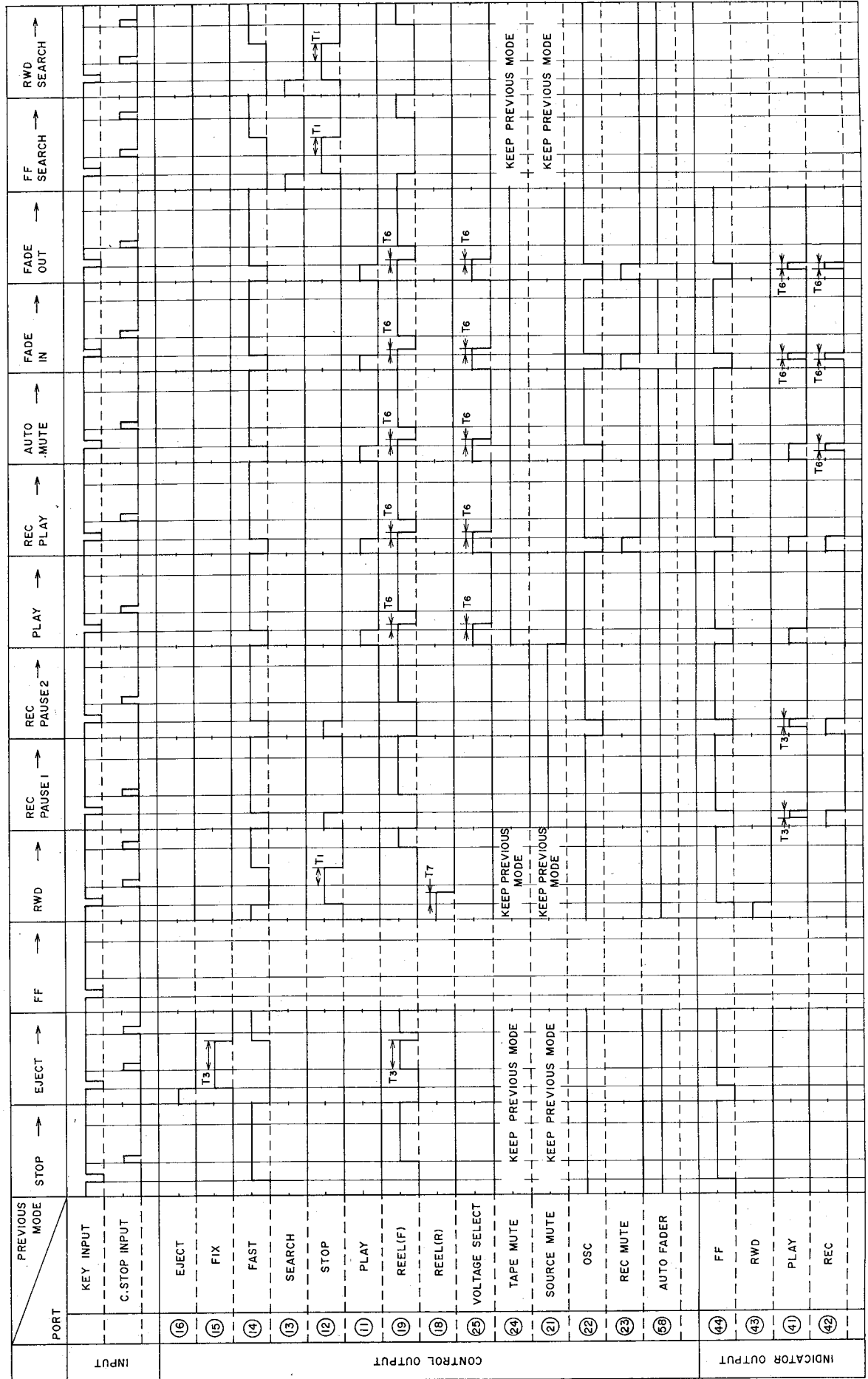
$T_0 = 1.0$	sec	$T_4 = 0.15$	sec
$T_1 = 0.1$	sec	$T_5 = 0.2$	sec
$T_2 = 0.05$	sec	$T_6 = 0.03$	sec
$T_3 = 0.5$	sec	$T_7 = 0.04$	sec

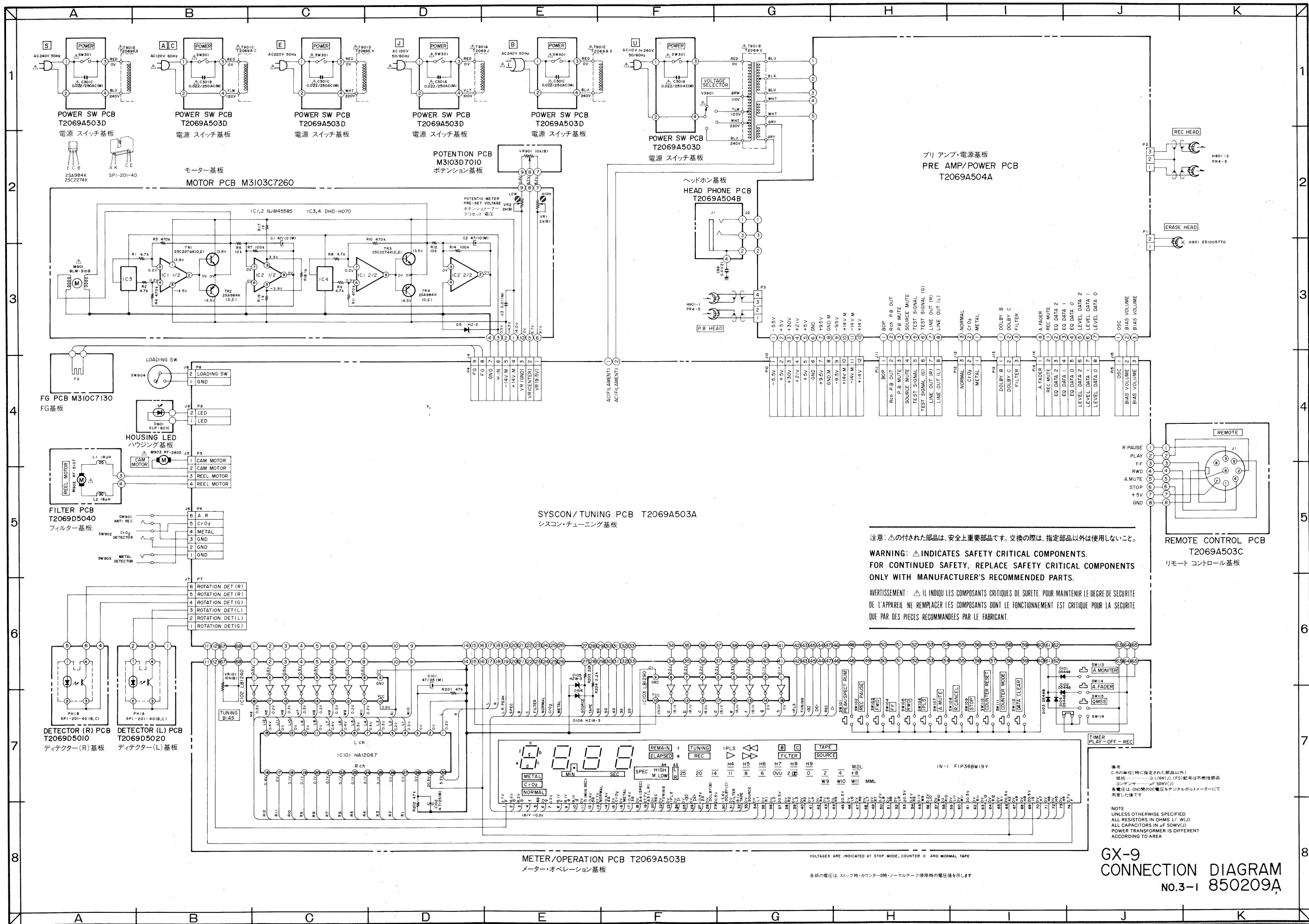


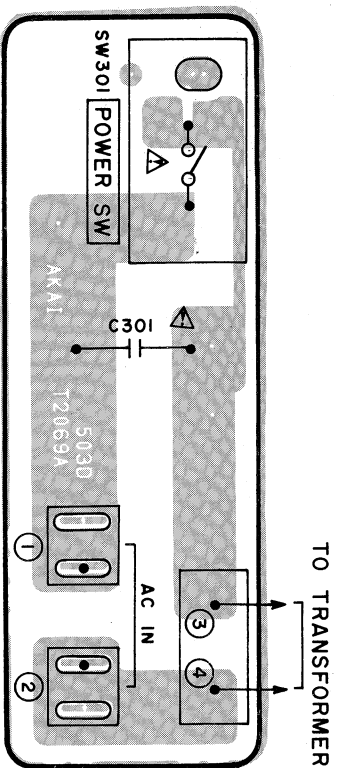
MI-COM OUTPUT TIMING CHART(4)

PREVIOUS MODE → FF

$T_0 = 1.0 \text{ sec}$ $T_4 = 0.15 \text{ sec}$
 $T_1 = 0.1 \text{ sec}$ $T_5 = 0.2 \text{ sec}$
 $T_2 = 0.05 \text{ sec}$ $T_6 = 0.03 \text{ sec}$
 $T_3 = 0.5 \text{ sec}$ $T_7 = 0.04 \text{ sec}$

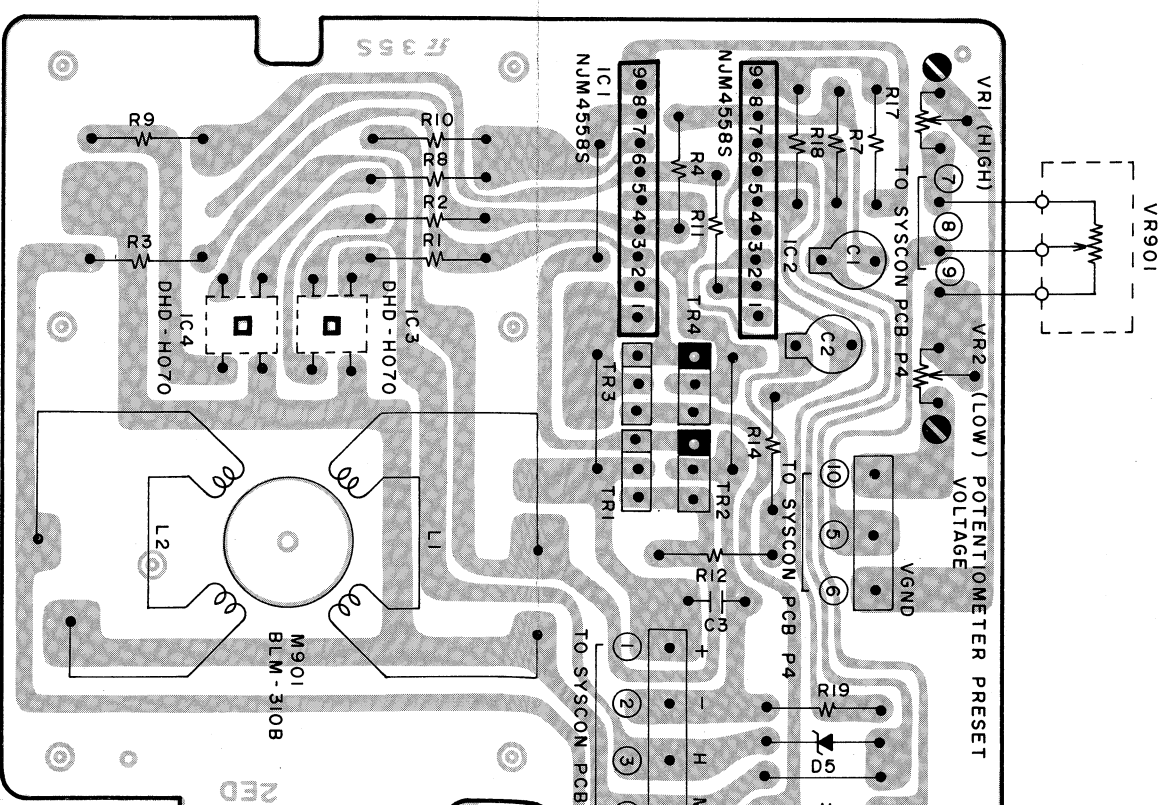






POWER SWITCH PCB
電源 SW基板

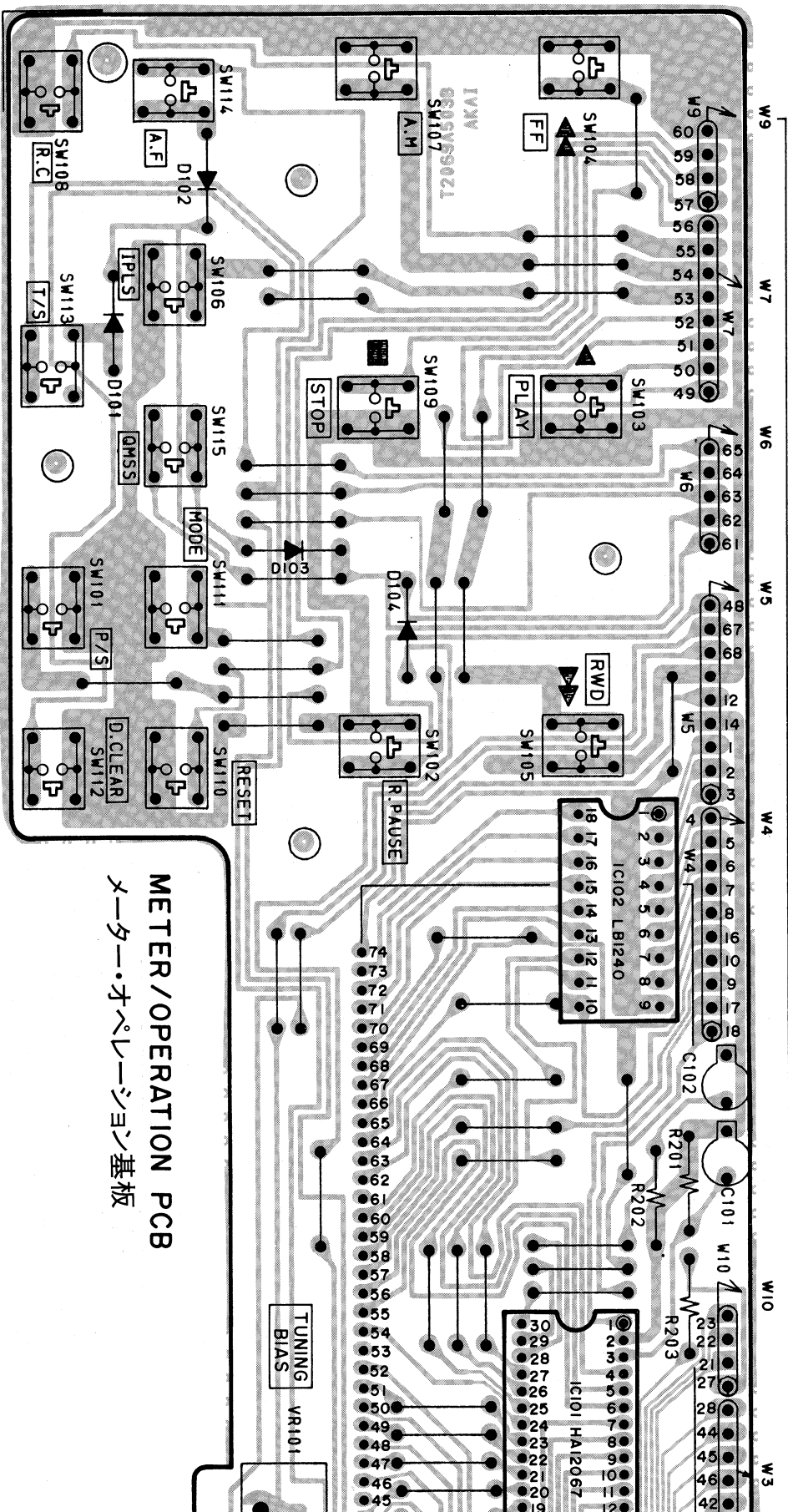
注意: △の付された部品は、安全上重要部品です。交換の際は、指定部品以外は使用しないこと。
WARNING: △ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
Avertissement: △ Il indique les composants critiques de sécurité. Pour maintenir le degré de sécurité de l'appareil, ne remplacer les composants dont le fonctionnement est critique, pour la sécurité que par des pièces recommandées par le fabricant.



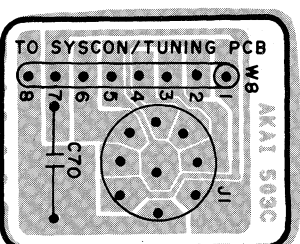
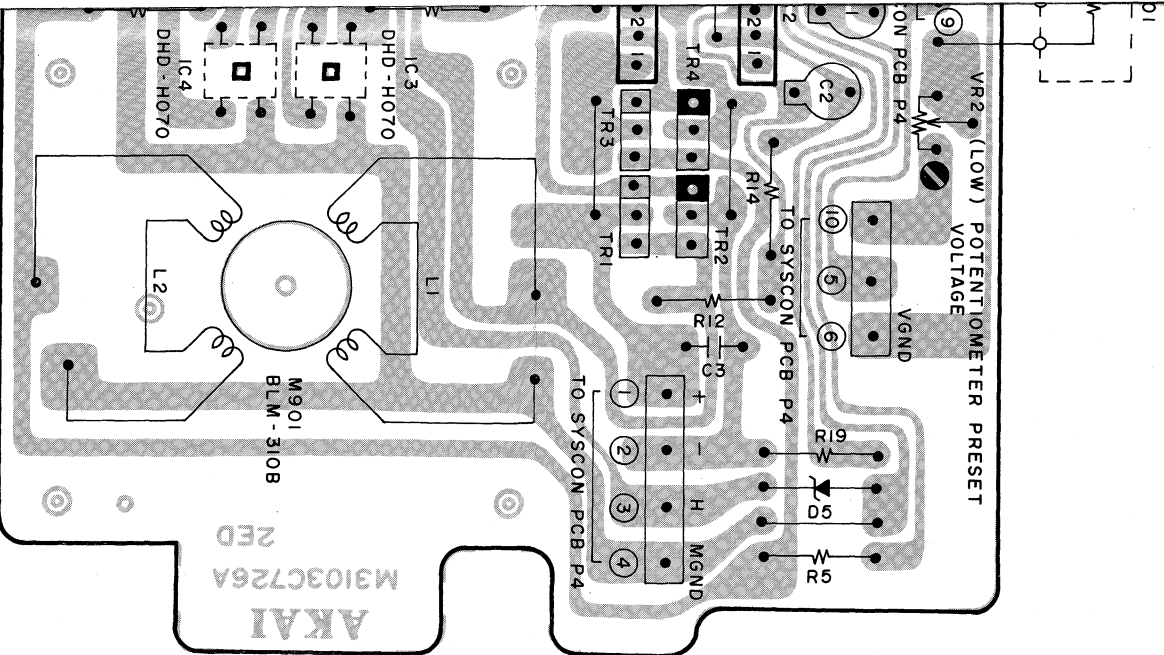
MOTOR PCB M3103C7260 (2ED)
モーター基板

● = PNP TRANSISTOR
● = NPN TRANSISTOR
TR1,3 --- 2SC2274
TR2,4 --- 2SA984

TO SYSCON/TUNING PCB



METER/OPERATION PCB
メーター・オペレーション基板



REMOTE CONTROL PCB
リモートコントロール基板

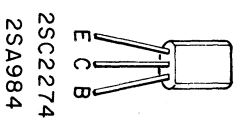
B M3103C7260 (2ED)

TRANSISTOR

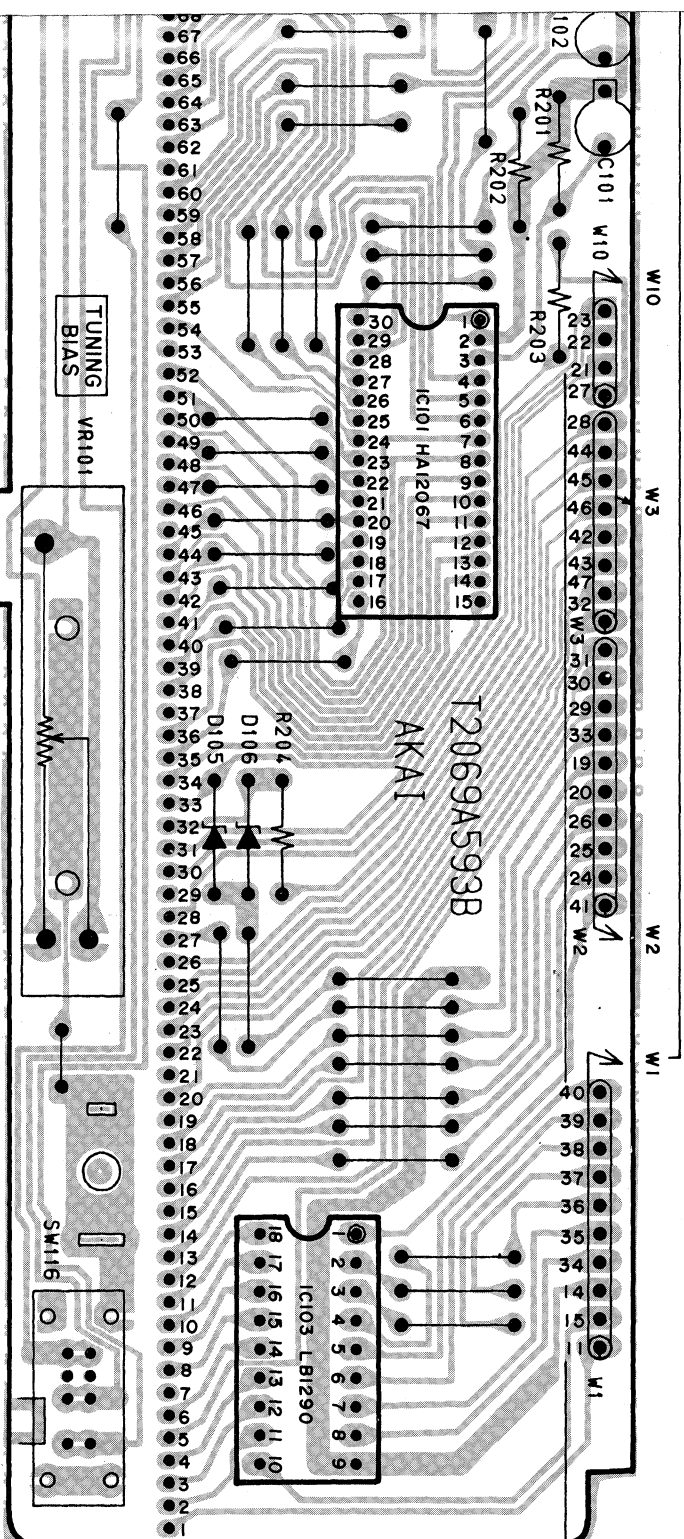
TRANSISTOR

2SC2274

2SA984

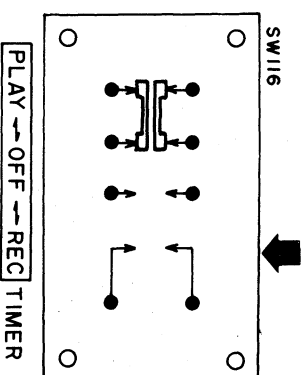


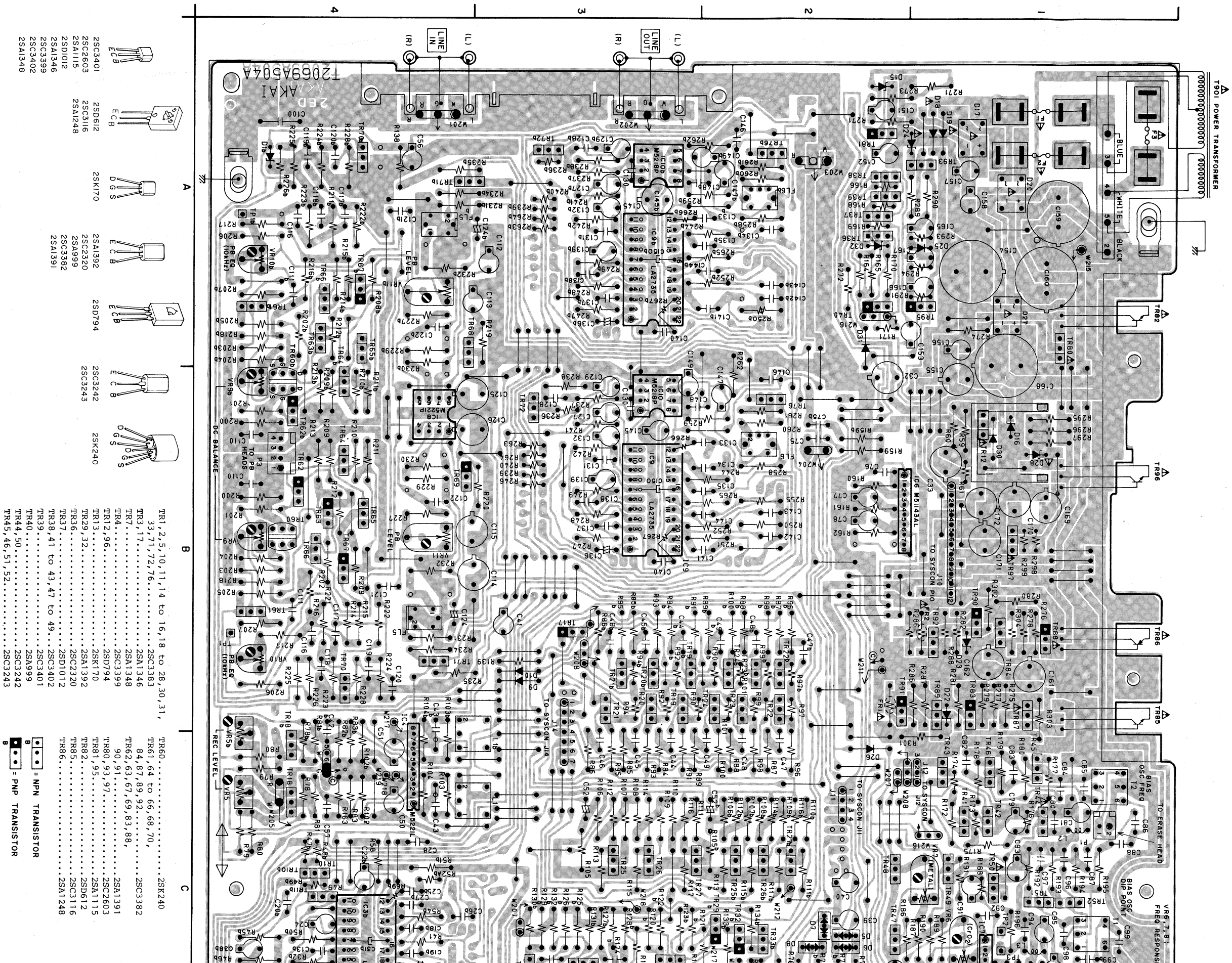
PCB



RATION PCB

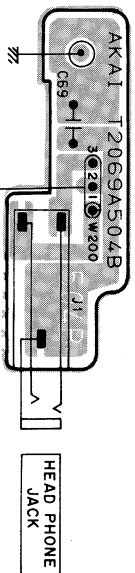
ーション基板





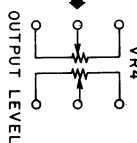
ヘッドホン基板

HEAD PHONE PCB

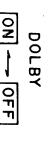


LOCATION OF COMPONENTS

ICs
IC1.....D3
IC2.....D3
IC3.....D4
IC3b.....C4
IC4.....C4
IC5.....D1
IC6.....B2
IC7.....C1
IC8.....B4
IC9.....B3
IC9b.....A3
IC10.....B3
IC10b.....A3
IC11.....D4



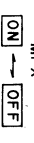
OUTPUT LEVEL



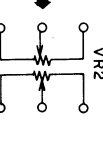
DOLBY
ON — OFF



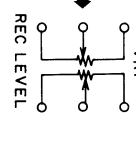
MPX
ON — OFF



REC BALANCE



VR2



REC LEVEL

TRs
TR1.....D3
TR1b.....D3
TR2.....D3
TR2b.....D3
TR3.....D3
TR4.....D3
TR5.....D3
TR7.....D3
TR10.....D4
TR10b.....C4
TR11.....D4
TR11b.....C4
TR12.....B1
TR13.....D2
TR13b.....D2
TR14.....D1
TR14b.....D1
TR15.....C2
TR15b.....C2
TR16.....C2
TR16b.....C2
TR17.....B3
TR18.....C4
TR18b.....C4
TR19.....B3
TR19b.....B3
TR20.....B3
TR20b.....B3
TR21.....B3
TR21b.....B3
TR22.....B2
TR22b.....B2

TR23.....B2
TR23b.....B2
TR24.....B2
TR24b.....B2
TR25.....C3
TR25b.....C3
TR26.....C2
TR26b.....C2
TR27.....C3
TR27b.....C3
TR28.....C3
TR28b.....C3
TR29.....C3
TR29b.....C2
TR30.....C2
TR30b.....C3
TR31.....C3
TR31b.....C3
TR32.....C2
TR32b.....C2
TR33.....C2
TR33b.....C2
TR36.....A2
TR36b.....A2
TR37.....A2
TR37b.....A2
TR38.....A2
TR38b.....A2
TR39.....A2
TR39b.....A2
TR40.....A2
TR40b.....A2
TR41.....C1
TR41b.....C1
TR42.....C1
TR42b.....C1
TR43.....C1
TR43b.....C1
TR44.....C1
TR44b.....C1
TR45.....C1
TR45b.....C1
TR46.....C1
TR46b.....C1
TR47.....C2
TR47b.....C2
TR48.....B1
TR48b.....B1
TR49.....A1
TR49b.....A1
TR50.....C1
TR50b.....C1
TR51.....C1
TR51b.....C1
TR52.....C1
TR52b.....C1
TR60.....B4
TR60b.....B4



TR60.....2SK240
TR61,64 to 66,68,70,
84,87,89,92.....2SC3382
TR62,63,67,69,83,88,
90,91.....2SA1391
TR80,93,97.....2SC2603
TR81,95.....2SA1115
TR82.....2SD612
TR85.....2SC3116
TR86.....2SA1248

• = NPN TRANSISTOR
• = PNP TRANSISTOR

PRE AMP / POWER PCB T2069A504A
プリアンプ・電源基板

注意: △の付かれた部品は、安全上重要部品です。交換の際は、指定部品以外は使用しないこと。
WARNING: △ INDICATES SAFETY CRITICAL COMPONENTS.
FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS
ONLY WITH MANUFACTURERS RECOMMENDED PARTS.
Avertissement: △ il indique les composants critiques de sécurité pour maintenir le degré de sécurité
de l'appareil. Ne remplacer les composants dont le fonctionnement est critique pour la sécurité
que par des pièces recommandées par le fabricant.

A

B

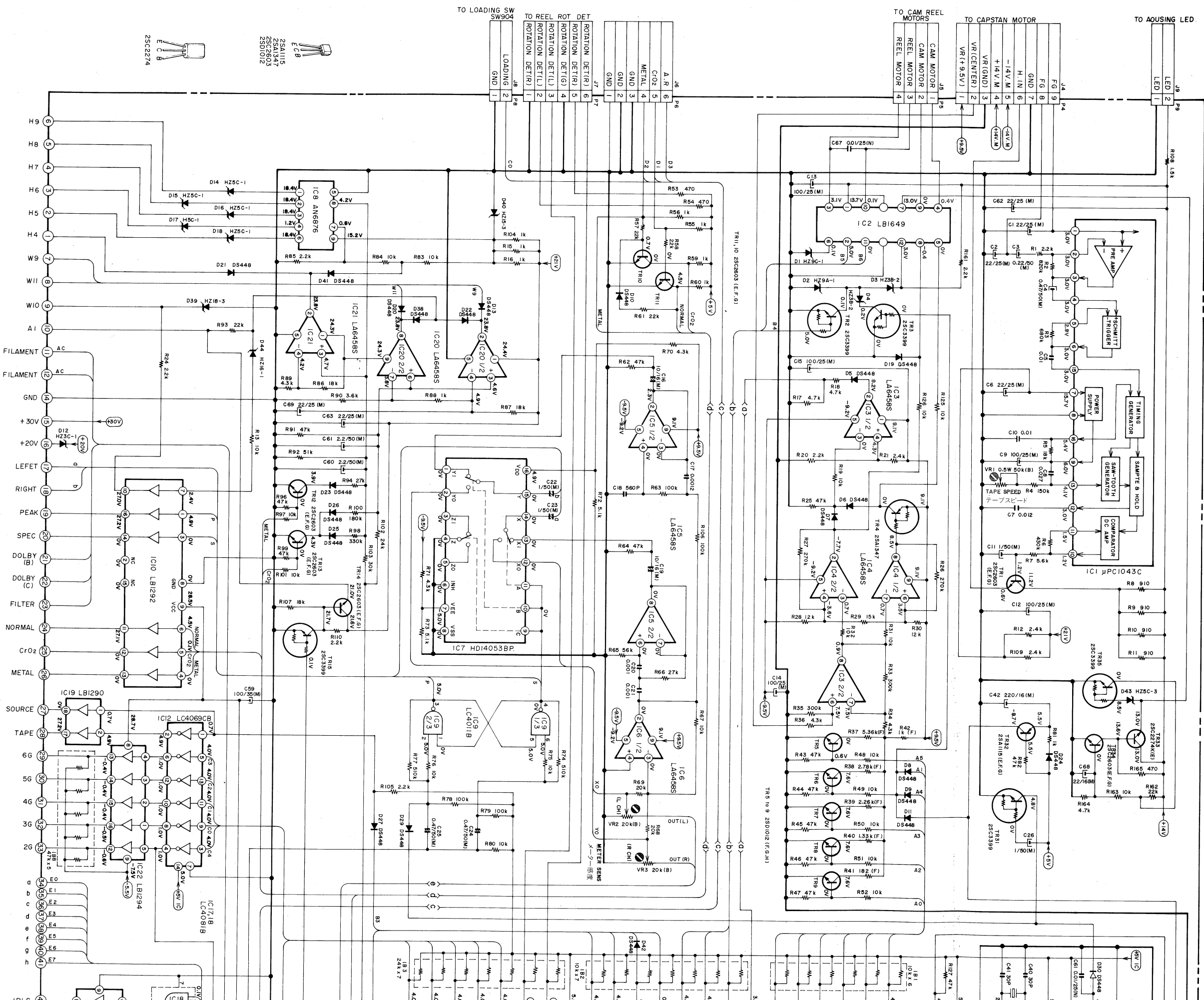
C

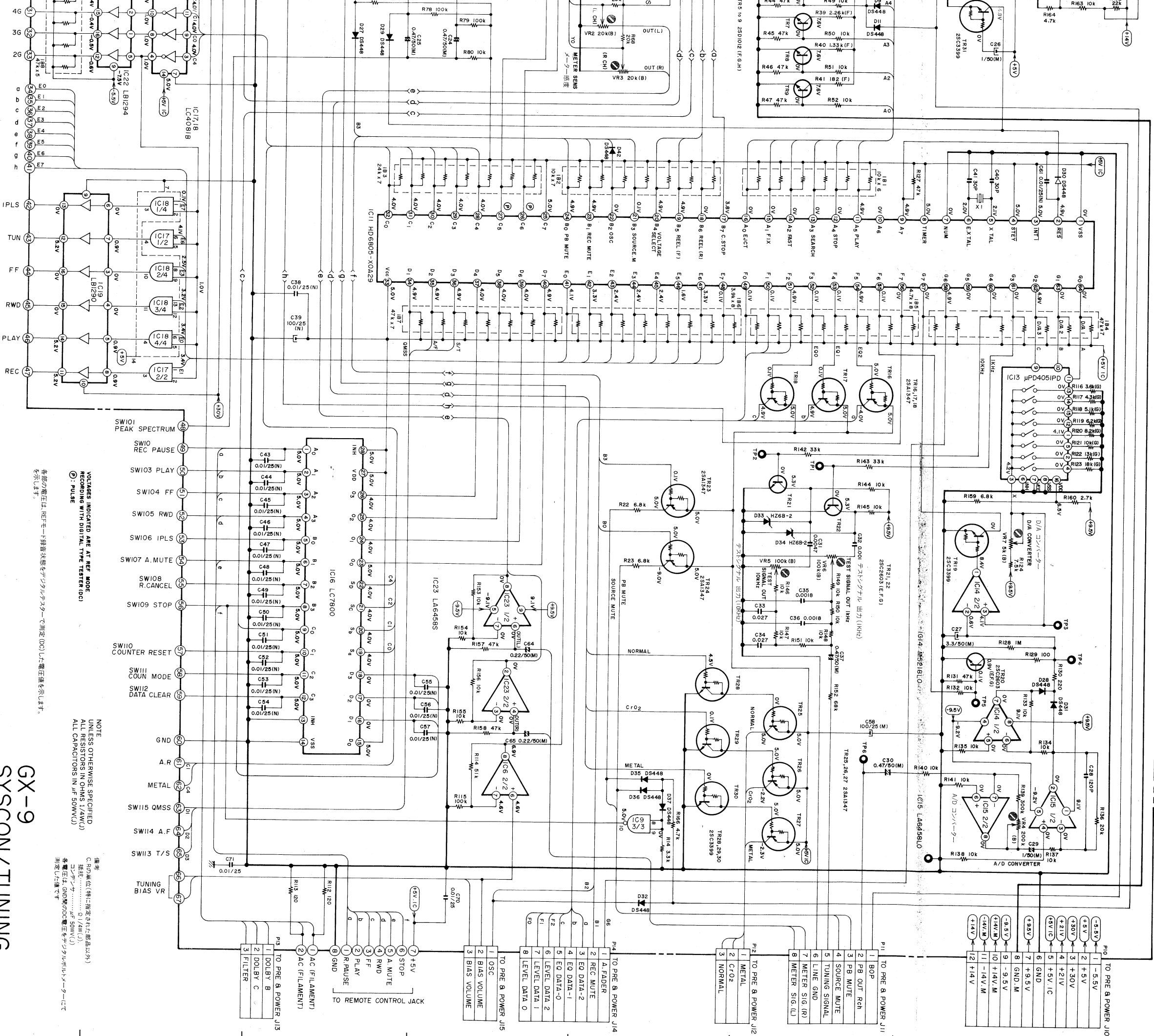
D

E

F

GX-9



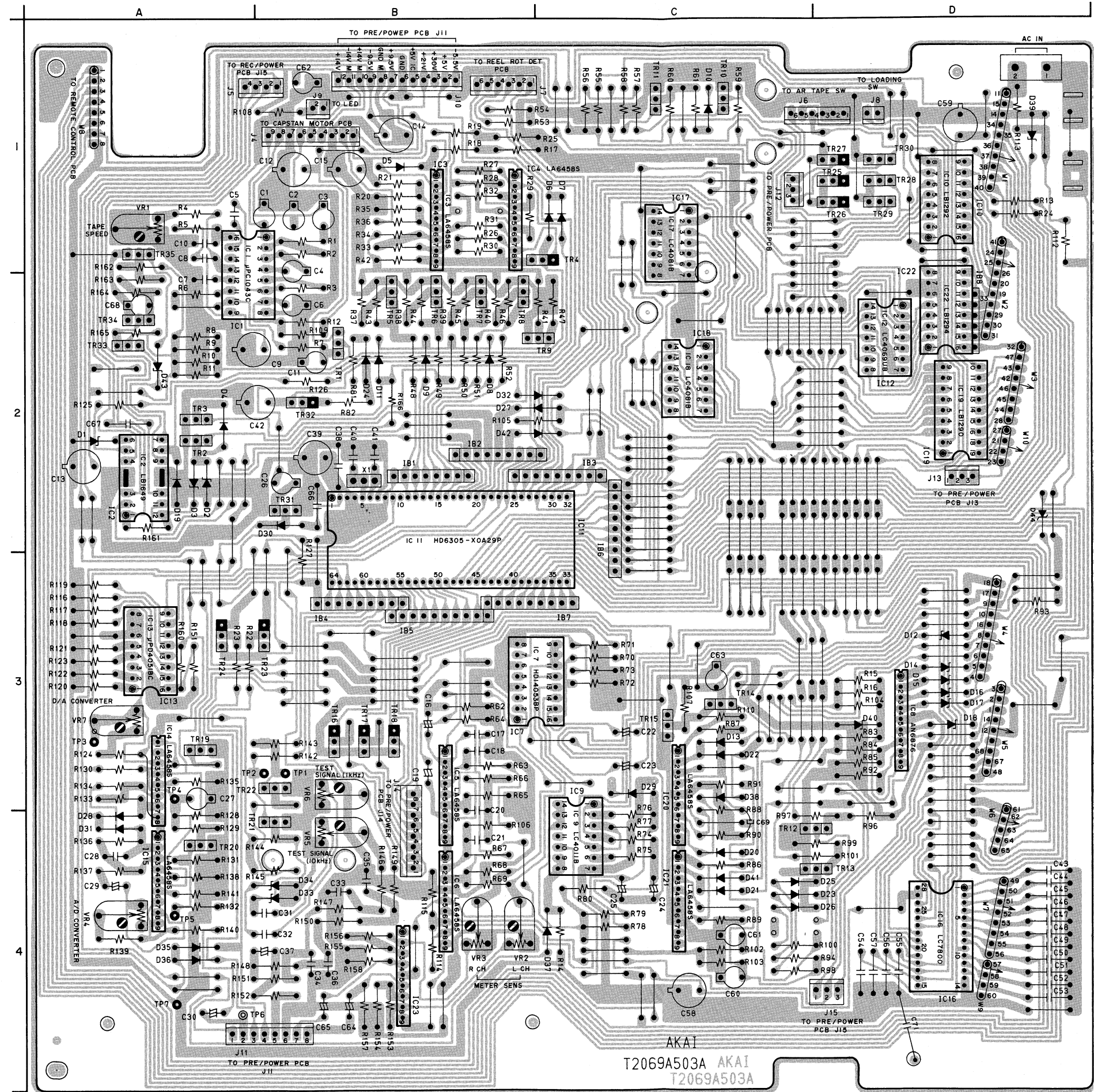


GX-9
SYSCON/TUNING
SCHEMATIC DIAGRAM
NO.3-3 850211A

VOLTAGES INDICATED ARE AT REF. MODE
RECORDING WITH DIGITAL TYPE TESTER (DC)
②: PULSE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS (1/4W, 1/2W)
ALL CAPACITORS IN pF (50WV)

備考
Cの単位(特に指定された部品以外)
抵抗値.....Ω (1/4W, 1/2W)
各電圧は、50WVのDC電圧をデジタルマルチメーターにて
測定した値です



SYSCON/TUNING PCB T2069A503A
シスコン・チューニング基板

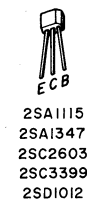
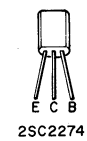
LOCATION OF COMPONENTS

IC

IC1.....A1
IC2.....A2
IC3,4.....B1
IC5.....B3
IC6.....B4
IC7.....B3
IC8.....D3
IC9.....C4
IC10.....D1
IC11.....B2
IC12.....D2
IC13,14.....A3
IC15.....A4
IC16.....D4
IC17.....C1
IC18.....C2
IC19.....D2
IC20.....C3
IC21.....C4
IC22.....D2
IC23.....B4

TR

TR1.....B2
TR2,3.....A2
TR4.....B1
TR5to9.....B2
TR10,11.....C1
TR12,13.....C4
TR14,15.....C3
TR16,17,18...B3
TR19.....A3
TR20.....A4
TR21.....B4
TR22.....B3
TR23,24.....A3
TR25to30.....D1
TR31,32.....B2
TR33,34,35...A2



= NPN TRANSISTOR
 = PNP TRANSISTOR

TR1,10 to 14,20,21,22,34
----- 2SC2603
TR2,3,15,19,28 to 31,35
----- 2SC3399
TR4,16,17,18,23 to 27
----- 2SA1347
TR5 to 9 ----- 2SD1012
TR32 ----- 2SA1115
TR33 ----- 2SC2274